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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,849	03/23/2001	Nobuyuki Tanaka	14447	5767

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/815,849	TANAKA, NOBUYUKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael Pyzocha	2137	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-6 are pending.

***Specification***

2. The specification is objected to under 37 CFR 1.75(d) for failing to failing to provide clear antecedent basis for the terms and phrases used in the claims. In particular, the specification fails to adequately link the corresponding structure, material, or acts in the specification with the particular means plus function limitations of claims 64-81 and 141-158. Per MPEP 2181, the Applicants are required to either (a) state on the record or (b) amend the specification to state the corresponding structure, material or acts to perform the recited function. MPEP 2181, p. 2100-219 particularly the paragraph beginning at the bottom of column 1 and ending in column 2.

***Claim Objections***

3. Claims 2 and 3-4 are objected to because of the following informalities: in claim 2, 8<sup>th</sup> paragraph "Huffman cording" should be "Huffman Coding" and in claims 3 and 4,

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4<sup>th</sup> paragraph "watermark date" should be "watermark data".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Donescu et al (U.S. 6,674,873).

As per claim 1, Donescu et al discloses frequency region converting means supplied with an original image of one frame divided into a plurality of blocks each consisting of a plurality of pixels, for converting said original image into a frequency-converted image data of a frequency region block by block (see column 6 lines 45-53); electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data; insertion information memorizing means for

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memorizing insertion information for designating the electronic watermark data to be inserted corresponding to the respective blocks among said electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data selecting means for selecting said particular electronic watermark data designated by said insertion information block by block from said electronic watermark memorizing means to produce a selected electronic watermark data; and insertion apparatus electronic watermark data inserting means for inserting said selected electronic watermark data in said frequency-converted image data of the frequency region to produce an electronic watermark inserted composite image data (see column 7 lines 21-30 where it is inherent that to insert a watermark there must be memory to store the watermark data, information stored on what part of the watermark data to insert, and means for selecting where to insert the watermark data).

As per claim 2, Donescu et al discloses frequency region converting means supplied with an original image of one frame divided into a plurality of blocks each consisting of a plurality of pixels, for converting said original image into a frequency-converted image data of a

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frequency region block by block (see column 6 lines 45-53); quantizing means for quantizing said frequency-converted image data into a quantized image data (see column 6 lines 54-58); electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data; insertion information memorizing means for memorizing insertion information for designating the electronic watermark data to be inserted corresponding to the respective blocks among said electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data selecting means for selecting said particular electronic watermark data designated by said insertion information block by block from said electronic watermark memorizing means to produce a selected electronic watermark data; and insertion apparatus electronic watermark data inserting means for inserting said selected electronic watermark data in said frequency-converted image data of the frequency region to produce an electronic watermark inserted composite image data (see column 7 lines 21-30 where it is inherent that to insert a watermark there must be memory to store the watermark data, information stored on what part of the watermark data to insert, and means for selecting where to insert the

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watermark data); and Huffman coding means for carrying out a Huffman coding on said electronic watermark inserted composite image data (see column 6 lines 59-64).

As per claim 3, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted blocks by block in one frame divided into a plurality of blocks; data extracting means, supplied with an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are inserted block by block, for extracting, on the basis of said insertion information, the electronic watermark data by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; and determining means for determining, on the basis of said

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statistical similarity, whether or not said electronic watermark data is detected (see column 13 lines 25-46 where it is inherent that the detection device has means for memorizing the type of watermark data and the watermark data).

As per claim 4, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a plurality of blocks; data extracting means, supplied with an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are inserted block by block, for extracting on the basis of said insertion information the electronic watermark data in said electronic watermark inserted composite image by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said



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extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data accumulating means for accumulating said statistical similarity for a predetermined time interval to produce an accumulated addition value; and determining whether or not said determining means for electronic watermark data is detected by comparing said accumulated addition value with a predetermined threshold value (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

As per claim 5, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a plurality of blocks; decoding means supplied with a Huffman coded composite image obtained by Huffman coding an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are inserted block by block decoding said Huffman coded composite image block by block to produce a decoded composite image; data extracting means for extracting, On the basis of said insertion information,

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the electronic watermark data in said decoded composite image by adding the blocks in which the same electronic Watermark data are inserted to Produce extracted data; data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; and determining means for determining, on the basis of said statistical similarity, whether or not said electronic watermark data is detected (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

As per claim 6, Donescu et al discloses an electronic watermark detection apparatus electronic watermark comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a plurality of blocks; supplied with a Huffman coded composite image obtained by Huffman coding an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are

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inserted block by block, for decoding said Huffman coded composite image block by block to produce a decoded composite image; data extracting means for extracting on the basis of said insertion information, the electronic Watermark data in said decoded composite image by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data accumulating means for accumulating said statistical similarity for a predetermined time interval to produce an accumulated addition value) and determining means for determining whether or not said is detected by comparing said with a predetermined threshold electronic watermark data accumulated addition value (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

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**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iwamura (U.S. 6,560,339) discloses a method for watermark insertion, and Chang et al (U.S. 6,532,541) discloses a method and apparatus for image authentication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:30am - 5:00pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

*Andrew Caldwell*  
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